

**WE CLAIM:**

1. A method for visualization of data knowledge on a computer, comprising the steps of:  
performing data mining of data to generate rules;  
representing said rules as objects in a three-dimensional space; and  
permitting using navigation and zooming in said three-dimensional space.
2. A method as claimed in claim 1, wherein said step of representing represents all rules generated during said data mining.
3. A method as claimed in claim 1, wherein said step of representing represents less than all rules generated during said data mining.
4. A method as claimed in claim 1, wherein said rules are represented as spheres, and said spheres are displayed in spiral arrangement.
5. A method as claimed in claim 4, wherein said spheres have a size representing a relative number of examples covered by the corresponding rule.
6. A method as claimed in claim 1, further comprising the step:  
displaying information on a rule upon selection of a three-dimensional object corresponding to the rule.
7. A method as claimed in claim 6, wherein said displaying step displays an index of the corresponding rule.
8. A method for cleansing noise from data, comprising the steps of:  
acquisition of a concept by a concept learner;  
evaluation of learned class descriptions and detection of concept components;

optimization of class descriptions according to predetermined criteria of class description evaluation; and  
formulation of a filter for modified concept descriptions and filtration of training data.

9. A method as claimed in claim 8; further comprising the steps of:  
applying a closed loop learning approach;  
running a learning program at least two times including a first run to acquire model descriptions and a second run to acquire detailed descriptions; and  
using filtered training data on said second run.